



MARINE DIVISION

Certificate number: 23741/A0 BV

File number: AP 4203

Product code: 42061

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**Zenitel Norway A/S**

Horten - NORWAY

*for the type of product*

### PUBLIC ADDRESS AND GENERAL ALARM SYSTEMS

Public Address and General Alarm System  
SPA-V2 System

**Requirements:**

BUREAU VERITAS Rules for the Classification of Steel Ships

SOLAS 74 as amended Reg. III/6, LSA Code, IMO MSC/Circ. 808, IMO Res. A.1021(26), IEC 60945:2002

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 12 Oct 2017**

For BUREAU VERITAS,

At BV OSLO, on 12 Oct 2012,

Rune MARSTEIN

*Rune Marstein*



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

SPA-V2 System is a Public Address and General Alarm System comprising the following modules:

#### 1.1 - Hardware:

Model / Series	Description
SPA PA 19" RACK	Racks Series with heights from 12U to 24U
SPA-TERM-V2	Terminal Board
SPA-MUL-xx	Multizone Boards Series
SPA-CHIME-V2	Generator Board
SPA-VDR-V2	VDR Board
SPA-EMS-V2	Emergency Speech Board
SPA-REL-xx / SPA-AL-REL-xx	Relays Board / Alarm Relays Board Series
SPA-EE3-V2 / SPA-DUALAL-V2	Tone Generator Boards
SPA-FAIL	Power Supply Failure Board
DR-4524	Power Supply Unit
SPA-Mxx	Microphone Panels Series
SPA-Wxx	Watertight Microphone Panels Series
SPA-ACx	Alarm Panels Series
ETC-I	Hand Microphone
P-66	Watertight Microphone
VPA-120, VPA-240 and VPA-400	Amplifiers

**Power Supply:** 230 VAC / 50 Hz + 24 VDC

#### 1.2 - Software:

Board	Software Version
SPA EE3	V2.0x
SPA-M6S/M6D	V3.0x
SPA-M6SD	V1.0x
SPA-CHIME-V2	V1.0x

**Note:** Functions of other Boards are DIP-Switches controlled.

### 2. DOCUMENTS AND DRAWINGS:

#### ZENITEL:

Manuals:

Public Address and General Alarm System, SPA-V2, System Manual Doc. No. A100K10369

Public Address and General Alarm System, SPA-V2, Installation & Configuration Manual Doc. No. A100K10370

Public Address and General Alarm System, SPA-V2, User Manual Doc. No. A100K10371.

Data Sheets:

3005010079 SPA-120, 3005010084 SPA-240, 3005010087 SPA-400, 3005010095 SPA-AC-6, 3005010096 SPA-AC6-D, 3005010145 SPA-M1H-D, 3005010146 SPA-M1H-V2, 3005010148 SPA-M1S-D, 3005010149 SPA-M1S-V2, 3005010157 SPA-M6H-D, 3005010158 SPA-M6H-V2, 3005010160 SPA-M6S-D, 3005010161 SPA-M6S-V2, 3005010195 SPA-W1AR-D, 3005010196 SPA-W1AR-V2, 3005010197 SPA-W1-D, 3005010199 SPA-W1-V2, 3005010203 SPA-W6A4-D, 3005010202 SPA-W6A4-V2, 3005010235 VPA-120, 3005010237 VPA-240, 3005010239 VPA-400.

### 3. TEST REPORTS:

From **DELTA:**

Test for Marine Type Approval of SPA-V2 System, Test Report No. DANAK-1911533 dated 19 August 2011

Type Approval testing of VPA-120, VPA-240 & VPA-400 PA/GA system power amplifiers, Test Report No.

DANAK-198453 dated 28 July 2006.

From **ZENITEL:**

Performance Test DNV PA/GA Type Approval of SPA-V2 system, Doc. Ver. 1.4 dated 2008-04-20 (witnessed on 2008.05.06).



**4. APPLICATION / LIMITATION:**

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.  
4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**  
4.3 - The equipment fulfils the EMC requirements for installation on the Bridge and deck Zone.  
4.4 - BUREAU VERITAS Environmental Category, **EC Code: 21.**  
4.5 - Each application and configuration is to be submitted to the Society's examination prior to fitting on board.  
4.6 - The equipment, once installed on board ship, is to be tested in accordance with the above referred Regulations under the supervision of a Society's Surveyor.  
4.7 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.  
4.8 - Factory Acceptance and On-board Tests are to be performed in accordance with requirements for Category II Equipment.

**5. PRODUCTION SURVEY REQUIREMENTS:**

- 5.1 - The **PA/GA SPA-V2 Systems** are to be manufactured, examined and tested by **Zenitel Norway A/S** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.  
5.2 - Arrangements shall be made for a Society's Surveyor to attend the relevant tests and examinations at manufacturer's works or to perform the relevant audits when an alternative survey scheme (BV Mode I) has been agreed. Relevant Bureau Veritas certificate will be issued after satisfactory completion of the procedure.

**6. MARKING OF PRODUCT:**

- 6.1 - According to IEC / EN 60945.  
6.2 -  or  conformity marking, as relevant.

**7. OTHERS:**

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that:

**Zenitel Norway A/S  
P.Box 1068  
3194 Horten  
NORWAY**

will accept full responsibility for informing shipbuilders, shipowners and/or their sub-contractors of the proper methods of fitting and general maintenance of the approved equipments and the conditions of this approval.

\*\*\* END OF CERTIFICATE \*\*\*